Amendments to the Specification:

Please delete the paragraphs on page 5, lines 2-5, and replace with the following paragraphs:

~~Fig. 1 is a listing of compounds, which can be suitable for use in the method of the present invention.~~

~~Fig. 2~~Fig. 1 is a schematic which represents regulation of platelet and HSC production in accordance with the method of the present invention.

Fig. 2 is a listing of compounds, which can be suitable for use in the method of the present invention. (Left column: SEQ ID NOS 1-4, 1, 2, and 5-12; middle column: SEQ ID NOS 13-17, 17, and 18-24; right column: SEQ ID NOS 1-2, 25-30, 29, 31, and 32, respectively in order of appearance).

Please delete the paragraph on page 6, lines 4-9, and replace with the following paragraph:

In one embodiment, the present invention is directed to increasing HSC production by administering to a subject a TPO peptide, a TPO mimetic compound, including, but not limited to the compounds set forth in ~~Fig. 1~~ Fig. 2, and PEGylated forms of the compounds set forth in ~~Fig. 1~~ Fig. 2. The methodology that may be employed for PEGylation of the compounds set forth in ~~Fig. 1~~Fig. 2 is described in U.S. Patent No. 5,869,451.

Please delete the paragraph on page 8, lines 11-16, and replace with the following paragraph:

TPO mimetic compounds such as those in ~~Fig. 1~~ Fig. 2 and disclosed herein can be used to increase HSC production. This is accomplished by administering one or more of the compounds to a subject. The compounds set forth in ~~Fig. 1~~ Fig. 2 and disclosed herein, as well as PEGylated forms of the compounds, set forth in ~~Fig. 1~~Fig. 2 can have reduced immunogenicity relative to one or more of rhTPO and rhIL-11 and can also have an improved pharmacokinetic profile relative to one or more of rhTPO and rhIL-11.

Please delete the paragraph on page 8, line 29 to page 9, line 8, and replace with the following paragraph:

The TPO mimetic compounds, including the compounds set forth in ~~Fig. 1~~ Fig. 2 and disclosed herein as well as the PEGylated forms of the compounds set forth in ~~Fig. 1~~ Fig. 2, can thus be used for, inter alia: reducing the time to engraftment following reinfusion of stem cells in a subject; reducing the incidence of delayed primary engraftment; reducing the incidence of secondary failure of platelet production; and reducing the time of platelet and/or neutrophil engraftment following reinfusion of stem cells in a subject. These methods typically include the steps of administering a TPO mimetic compound to a subject in need thereof to enhance expansion of the stem cell population within bone marrow and/or mobilize the stem cells in peripheral circulation and then harvesting one or more of the bone marrow stem cells or the stem cells in the peripheral circulation and then transplanting the harvested stem cell back into the subject at the appropriate time, as determined by the particular needs of the subject.

Please delete the paragraph on page 9, lines 13-24, and replace with the following paragraph:

The TPO mimetic compounds useful for the present invention can be administered as pharmaceutical compositions comprising, as an active ingredient, at least one of the peptides or peptide mimetics set forth in ~~Fig. 1~~ Fig. 2 and/or disclosed herein and/or described in U.S. Patent No. 5,869,451, the entire content of which is hereby incorporated by reference, in association with a pharmaceutical carrier or diluent. The compounds can be administered by oral, pulmonary, parental (intramuscular, intraperitoneal, intravenous (IV) or subcutaneous injection), inhalation (via a fine powder formulation), transdermal, nasal, vaginal, rectal, or sublingual routes of administration and can be formulated in dosage forms appropriate for each route of administration. See, e.g., Bernstein, et al., PCT Patent Publication No. WO 93/25221; Pitt, et al., PCT Patent Publication No. WO 94/17784; and Pitt, et al., European Patent Application 613,683, each of which is incorporated herein by reference.